

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty Dkt. 3926-20  
C# M#

FROGGATT et al.

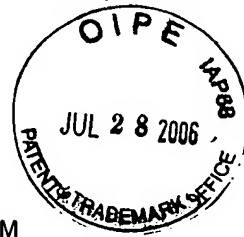
TC/A.U. unknown

Serial No. 10/520,819

Examiner: Unknown

Filed: July 26, 2005

Date: July 28, 2006

Title: POLARIZATION DIVERSITY DETECTION WITHOUT A POLARIZING BEAM  
SPLITTER

IFW

**Mail Stop Non-Fee Amendment**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE/AMENDMENT/LETTER**

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☐ **Correspondence Address Indication Form Attached.****Fees are attached as calculated below:**

Total effective claims after amendment 19 minus highest number  
previously paid for 20 (at least 20) = 0 x \$50.00 \$0.00 (1202)/\$0.00 (2202) \$

Independent claims after amendment 3 minus highest number  
previously paid for 3 (at least 3) = 0 x \$200.00 \$0.00 (1201)/\$0.00 (2201) \$

If proper multiple dependent claims now added for first time, (ignore improper); add  
\$360.00 (1203)/\$180.00 (2203) \$

Petition is hereby made to extend the current due date so as to cover the filing date of this  
paper and attachment(s)  
One Month Extension \$120.00 (1251)/\$60.00 (2251)  
Two Month Extensions \$450.00 (1252)/\$225.00 (2252)  
Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)  
Four Month Extensions \$1590.00 (1254)/\$795.00 (2254)  
Five Month Extensions \$2160.00 (1255)/\$1080.00 (2255) \$

Terminal disclaimer enclosed, add \$130.00 (1814)/ \$65.00 (2814) \$

☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee \$180.00 (1806) \$

Assignment Recording Fee \$40.00 (8021) \$

Other: \$

**TOTAL FEE ENCLOSED \$ 0.00**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

901 North Glebe Road, 11th Floor  
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JRL:maaNIXON & VANDERHYE P.C.  
By Atty: John R. Lastova, Reg. No. 33,149Signature: 



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Pre Patent Application of

FROGGATT et al.

Atty. Ref.: 3926-20; Confirmation No. 2728

Appl. No. 10/520,819

TC/A.U. 2877

Filed: January 7, 2005

Examiner: Unknown

For: **POLARIZATION DIVERSITY DETECTION WITHOUT A POLARIZING BEAM SPLITTER**

\* \* \* \* \*

July 28, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REQUEST FOR REPUBLICATION OF APPLICATION UNDER RULE 221(b)**

Pursuant to 37 CFR §1.221(b), Applicants hereby request republication of the captioned application to correct material mistakes in the original publication occasioned US 2006/0164627 A1 on July 27, 2006 by material mistakes of the U.S. Patent Office. This request is timely filed within two months of the date of publication.

1. Paragraph number 0002, line 2 of the publication: the PCT Application No. should read as stated in the Preliminary Amendment filed January 7, 2005:

PCT/US2003/021336

2. Paragraph number 0009, line 4 of the publication: the letter d should be italicized in (0, d). It should read as originally filed:

$E_2=(0,d)$

3. Paragraph number 0010, line 2 of the publication: the letters a and b should be italicized in (a', b'). It should read as originally filed:

$$E_1=(a', b') \exp (i\omega\tau)$$

4. Paragraph number 0010, line 3 of the publication: the letters c and d should be italicized in (c', d'). It should read as originally filed:

$$E_2=(c', d')$$

5. Paragraph number 0010, lines 3-4 of the publication: the letters a, c, b and d should be italicized in  $E_1+E_2=(a' \exp (i\omega\tau)+c', b' \exp (i\omega\tau)+d')$ . It should read as originally filed:

$$E_1 + E_2 = (a' \exp (i\omega\tau) + c', b' \exp (i\omega\tau) + d')$$

6. Paragraph number 0034, line 11 of the publication: the letters pr together should be deleted. The line should read as originally filed:

buffer 50 before being processed by the data processor 32.

7. Paragraph number 0038, lines 7-8 of the publication: the letters i and j should be italicized. It should read as originally filed:

the propagation from coupler *i* to coupler *j* (*i, j* = 1,2,3,4) be represented by the matrix  $M_{ij}$ .

8. Paragraph number 0040, lines 4-6 of the publication: the letters x, M and y should be italicized in certain places. It should read as originally filed:

the identity,  $\bar{x} \cdot (M\bar{y}) = \bar{y} \cdot (M'\bar{x})$ , where x and y are arbitrary vectors, M is an arbitrary matrix, and  $M'$  is the transpose of Matrix M,

9. Paragraph number 0040: the upper index t is misplaced and the lower index \_\_\_ should be 13 in equation 5. The upper index t is also misplaced in equation 6. The corrected text should read as originally filed:

$$(M_{13}\bar{E}_1) \cdot \bar{s} = \bar{E}_1 \cdot (M'_{13}\bar{s}^*) = \bar{E}_1 \cdot \bar{s}' \quad (5)$$

$$(M_{14}\bar{E}_1) \cdot \bar{p} = \bar{E}_1 \cdot (M'_{14}\bar{p}^*) = \bar{E}_1 \cdot \bar{p}' \quad (6)$$

10. Paragraph number 0042: the absolute value signs need correcting. The corrected text should read as originally filed:

$$P_s = |E_x|^2 + |s|^2 + 2E_x s \cos \phi_x \quad (7)$$

$$P_p = |E_y|^2 + |p|^2 + 2E_y p \cos \phi_y \quad (8)$$

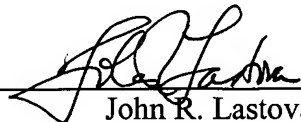
It is respectfully requested that the captioned application be republished with the corrected text as originally-filed on January 7, 2005.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers, e.g., the requested republication, and the continued pendency of the captioned application.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



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